

Comparisons of Job Characteristics

Focus Occupation: [Locomotive Engineers \(53-4011\)](#)

Associated Occupation: [Railroad Brake, Signal, and Switch Operators \(53-4021\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Locomotive Engineers (53-4011)

Associated Occupation: Railroad Brake, Signal, and Switch Operators (53-4021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Transportation	4.6	14.2	13.9	0	Current knowledge level may be sufficient
Public Safety and Security	6.9	10.4	8.7	<	Expanded education and/or training may be required
Mechanical	6.8	9.5	7.9	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Locomotive Engineers (53-4011)

Associated Occupation: Railroad Brake, Signal, and Switch Operators (53-4021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Operation Monitoring	6.6	9.6	13.3	>>	Skill level is likely more than sufficient
Operation and Control	5.4	9.2	13.6	>>	Skill level is likely more than sufficient
Troubleshooting	4.5	7.6	7.1	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 76

Focus Occupation: Locomotive Engineers (53-4011)

Associated Occupation: Railroad Brake, Signal, and Switch Operators (53-4021)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Far Vision	7.8	12.8	14.7	>	Current ability level is likely sufficient
Auditory Attention	5.9	10.5	12.6	>	Current ability level is likely sufficient
Reaction Time	4.8	10.1	14.4	>>	Current ability level is likely more than sufficient
Extent Flexibility	4.8	10.0	4.4	<<	Extensive improvement in abilities may be required
Gross Body Coordination	3.9	9.1	4.4	<<	Extensive improvement in abilities may be required
Gross Body Equilibrium	3.2	8.8	3.2	<<	Extensive improvement in abilities may be required
Rate Control	3.8	8.3	11.5	>>	Current ability level is likely more than sufficient
Glare Sensitivity	2.6	7.0	7.6	0	Current ability level may be sufficient
Spatial Orientation	2.7	6.3	7.3	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Locomotive Engineers (53-4011)
Associated Occupation: Railroad Brake, Signal, and Switch Operators (53-4021)

Work Activities	Exclusivity of Activity
Inspect railroad equipment	89
Monitor railroad vehicle or equipment operation	89
Perform safety inspections in transportation setting	62
Read switching order, train orders, or arrival or departure schedules	92
Understand railroad signals	89
Use two-way radio or mobile phone	42

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: n/a

Focus Occupation: Locomotive Engineers (53-4011)
Associated Occupation: Railroad Brake, Signal, and Switch Operators (53-4021)

Tools and Technologies	Exclusivity
Tools and technology data is unavailable for one or both occupations.	

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.